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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,171

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Takayuki Omura

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TOWNSEND & BANTA

c/o PORTFOLIO IP

PO BOX 52050

MINNEAPOLIS, MN 55402

EXAMINER

MATTISON, LORI K

ART UNIT

PAPER NUMBER

1619

MAIL DATE

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04/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/584,171

Applicant(s)

OMURA ET AL.

Examiner

LORI MATTISON

Art Unit

1619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 13-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. All correspondence regarding this application should be directed to Group Art Unit 1619.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-12, drawn to a skin treatment composition having a water dispersion of a polymer in which a non-water soluble film-forming polymer is dispersed in water, where in the main ingredients of said film-forming polymer are polyurethane having a film shrinkage rate of 20% or less and an acrylic type polymer having a film shrinkage rate of 20% or less.

Group II, claim(s) 13-25, drawn to a skin treatment composition for wrinkle reduction comprising (a) a non-emulsification type cross linked silicone, (b) a film forming polymer having a film shrinkage rate of 20% or less containing as a main ingredient a polyurethane having a film shrinkage rate of 20%; (c) a liquid oil component; and (d) water.

The inventions listed as Groups I and II, do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: they do not

share the same structural element(s) that define the "special technical feature" necessary to specify a contribution over the prior art. The structural moiety, element, or step common to Groups I-II is the film forming polymer.

Comparative Example 6 of US Publication No. 2003/0027968 (Kato, 2003; Kato (page 12, paragraph 135, Table 7) discloses the limitations of instant claim 1. Specifically, the composition of Comparative Example 6 is disclosed to be an aqueous resin dispersion component (i.e. non-water soluble film forming polymer) comprising 40 parts of PU (1) which is disclosed to be an aqueous dispersion of a polyurethane resin (page 10, paragraph 131, Table 3) and 60 parts acrylic (5) which is also an aqueous dispersion of acrylic resin (page 9, paragraph 126).

Since the film forming polymer was already known in the art, it therefore, cannot be said to be the special technical feature that makes a contribution over the prior art. All other structural moieties, elements, or steps differ materially from one another. Thus, these claims lack the corresponding special technical feature(s) necessary to link them together to fulfill the Unity of Invention requirement.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does

not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the

above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01

Applicant's election without traverse of claims 1-12, in the reply filed on 02/12/2009 is acknowledged.

Status of the Claims

Applicant's amendments filed 6/22/2006 to claims 1-25 have been entered. Claims 1-25 are pending in the current application, of which claims 1-12 are being considered on their merits. Claims 13-25 are withdrawn from consideration at this time.

Specification

The abstract of the disclosure is objected to because the abstract is longer than 165 word limit. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: the remainder of paragraph 156 on page 58 appears to have deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "type" in claims 1, 5-9, and 11 is a term which renders the claim indefinite. It is unclear as how different a polymer must be before it is not longer an acrylic "type" polymer. Clarification is required. Because claims 2-12 depend from indefinite claim 1 and do not clarify the point of confusion, they must also be rejected under 35 U.S.C. 112, second paragraph.

The term "main ingredient(s)" in claims 1 and 5 is a term which renders the claim indefinite. It is unclear as to what percentage an ingredient needs to be present in the composition to be considered a "main ingredient." Clarification is required. Because claims 2-12 depend from indefinite claim 1 and do not clarify the point of confusion, they must also be rejected under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by US Publication No. 2003/0027968 (Kato, 2003).

Comparative Example 6 of Kato (page 12, paragraph 135, Table 7) discloses the limitations of instant claim 1. Specifically, the composition of Comparative Example 6 is

disclosed to be an aqueous resin dispersion component (i.e. non-water soluble film forming polymer) comprising 40 parts of PU (1) which is disclosed to be an aqueous dispersion of a polyurethane resin (page 10, paragraph 131, Table 3) and 60 parts acrylic (5) which is also an aqueous dispersion of acrylic resin (page 9, paragraph 126).

With regard to the film shrinkage rate of the polyurethane being 20% or less and the film shrinkage rate of the acrylic polymer being 20% or less, the composition as claimed was already known and was disclosed by Kato. A previously unrecognized property of a prior art composition does not render the old composition patentably new to the discoverer. [M.P.E.P. § 2112; *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Circ. 1999)].

With regard to the ethyl acrylate being the main ingredient, as set forth by instant claim 5, ethyl acrylate is a main ingredient in the acrylic (5) aqueous dispersion (page 9, paragraph 126).

With regard to the film strength of the polyurethane being 300-700 kg/cm² and the film strength of the acrylic acid type polymer being 0.1-1000 kg/cm², as set forth by claim 7, the composition as claimed was already known and was disclosed by Kato. A previously unrecognized property of a prior art composition does not render the old composition patentably new to the discoverer. [M.P.E.P. § 2112; *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Circ. 1999)].

With regard to the film elongation of the polyurethane polymer being 200-500% and the film elongation of the acrylic type polymer being 500-2000%, as set forth by claim 8, the composition as claimed was already known and was disclosed by Kato. A

previously unrecognized property of a prior art composition does not render the old composition patentably new to the discoverer. [M.P.E.P. § 2112; *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Circ. 1999)].

Comparative Example 6 of Kato (page 12, paragraph 135, Table 7) discloses the limitations of instant claim 9 by disclosing that PU (1) has an average particle size of 114 nm (page 10, Table3) and the acrylic resin, acrylic (5), has an average particle diameter of 302 nm (page 9, paragraph 126).

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by French Publication No. 2791557 (Ramin, 2000).

Example 1 of Ramin (paragraph 35 of the machine translation) discloses the limitations of instant claim 1. Specifically, the composition is a nail varnish which comprises an aqueous dispersion of a styrene acrylate copolymer and a polyurethane associative polymer.

With regard to the film shrinkage rate of the polyurethane being 20% or less and the film shrinkage rate of the acrylic polymer being 20% or less, the composition as claimed was already known and was disclosed by Ramin. A previously unrecognized property of a prior art composition does not render the old composition patentably new to the discoverer. [M.P.E.P. § 2112; *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Circ. 1999)].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication No. 2003/0027968 (Kato, 2003).

The limitations of instant claims 1 and 7-9 are addressed above.

Kato teaches that the average particle diameter for the polyurethane PU (1) is 114 nm (page 10, Table 3). Kato goes on to teach that that if the average particle size of the polyurethane is 20 nm or greater the manufacture of the aqueous dispersion of the polyurethane resin is easier, however it is not preferable that the size of the particle should exceed 300 nm because of the resin begins to lose its ability to resist crease whitening (page 3, paragraph 32).

Kato does not immediately envisage a mixture of polyurethane particles having an average size of 20-60 nm and an average size of 150-200 nm.

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have routinely optimized the size of the polyurethane particles to an average size of 20-60 nm and 150-200 nm because Kato teaches that particle sizes larger than 20 nm are preferable for ease resin manufacturing but particle sizes over 300 nm are detrimental to crease whitening resistance of the resin.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato as applied to claims 1, 5, and 7-10 above, and further in view of US Patent No. 4,656,228 (Richter, 1987).

With regard to the limitations of instant claims 2 and 4, Kato teaches that the polyurethane, PU(1), was formed by reacting a polyether diol (i.e. polytetramethylene glycol), an isocyanate (i.e. isophorone diisocyanate), and an alkylene diol containing a carboxyl group (i.e. dimethylolpropanic acid)(page 8, paragraph 101). With regard to the limitations of instant claim 3, Kato teaches that the isophorone is diisocyanate (page 8, paragraph 101). Kato goes on to teach that polycarbonate diols, such as polyhexamethylene carbonate diol and poly(3-methyl-1,5,-pentylene adipate) diol (i.e. PMPA) are macromolecular polyols, along with polytetramethylene glycol, that may be used in the polyurethane and that it is preferred that one or more of the these macromolecular polyols are used to provide durability (page 2, paragraph 2).

Kato does not immediately envisage use of polycarbonate diols in the polyurethane as set forth by instant claim 2,

Kato does not immediately envisage use of polyhexamethylene carbonate diol as set forth by instant claim 4.

Richter teaches that polyurethanes prepared from polycarbonate diols, specifically polyhexamethylene carbonate diol, are highly rigid and have impact strength (column 1, lines 5-20).

With respect to instant claim 2, it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have added a polycarbonate diol to the polyurethane resin taught by Kato in order to provide rigidity and strength to Kato's polyurethane resin.

With respect to instant claim 4, it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have added a polyhexamethylene carbonate diol to the polyurethane resin taught by Kato in order to provide rigidity and strength to Kato's polyurethane resin.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato as applied to claims 1, 5, and 7-10 above, and further in view of US Publication No. 2001/0003358 (Terase, 2001).

With regard to instant claim 12, table 8 (page 12) teaches that comparative 3xample 6 of Kato was only moderately resistant to chlorine bleaching agents. Kato extends an invitation to optimize the invention by teaching that additives commonly used in the art may be added to the invention (page 6, paragraph 58).

Kato does not teach scaly silica as set forth by instant claim 12.

Terase teaches that scaly silica forms a strong coating film that has both acid and base resistance (page 1, paragraph 1)

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have added scaly silica to the composition of comparative example 6 of Kato in order to improve its acid and base resistance since the composition of comparative example 6 is susceptible to chlorine bleaching agents.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, as applied to claims 1, 5, and 7-10 above, and further in view of US Patent No. 3959205 (Kobayashi, 1976)

Kato extends an invitation to optimize the invention by teaching that additives commonly used in the art may be added to the invention such as polyvinyl alcohol (page 6, paragraph 58).

Kato does not teach sulfonated polyvinyl alcohol as set forth by instant claim 6.

Kobayashi teaches that polyvinyl alcohol is an alcohol used emulsion polymerization reactions. However, it is not effective for acrylic esters or methacrylic esters (column 1, lines 10-25). Instead emulsifiers are typically used (column 1, lines 15-25). Kobayashi teaches a modified polyvinyl alcohol comprising an olefinsulfonate (i.e. sulfonated PVA) which provides stable aqueous emulsions of acrylate polymers, and methacrylic polymers (column 1, lines 30-65; column 3, lines 55-end; column 4, lines 1-15).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have dispersed the acrylic polymer of Kato's invention in the modified polyvinyl alcohol taught by Kobayashi because Kato's invention requires that the acrylic polymer be dispersed and Kobayashi's sulfonated polyvinyl alcohol overcomes the problem pertaining to unstable acrylate dispersions.

Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over French Publication No. 2791557 (Ramin, 2000).

The limitations of instant claim 1 are addressed above.

The acrylate dispersion (paragraph 35) comprises 28% of the acrylate dispersion. The polyurethane dispersion is present in an amount of 1% of the composition. Ramin goes on to teach that acrylates are monomers of the vinyl film forming polymer (paragraph 14). Ramin further teaches that the polymers in an aqueous dispersion can be present in an amount effective to form a film with the content of the film being preferably 5-45% dry weight film forming polymers to the total weight of the composition (paragraph 22).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have optimized the Ramin's composition through routine experimentation to provide 1-20% acrylic type vinyl film forming polymer because Ramin teaches that the amount of the film forming polymers in the composition may vary provided that the amount is "effective" enough to form a film.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LORI MATTISON whose telephone number is (571)270-5866. The examiner can normally be reached on 8am-6pm (Monday-Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571)272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. M./
Examiner, Art Unit 1619

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615